

WHAT IS CLAIMED IS:

1. A magnetic toner comprising magnetic toner particles each comprising at least a binder resin and a magnetic iron oxide, wherein:

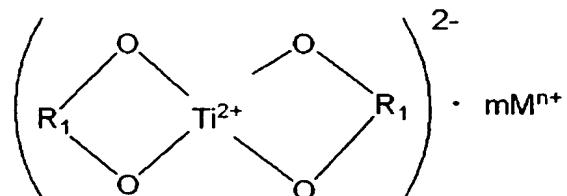
the magnetic toner has a saturation magnetization  $\sigma_s$  being in the range of 5 to 60 Am<sup>2</sup>/kg and a remanent magnetization  $\sigma_r$  being in the range of 0.1 to 10.0 Am<sup>2</sup>/kg in a measured magnetic field of 795.8 kA/m; and

the binder resin contains a polyester component polymerized by using a Ti chelate compound as a catalyst.

2. A magnetic toner according to claim 1, wherein the Ti chelate compound has a ligand selected from the group consisting of a diol, a dicarboxylic acid, and an oxycarboxylic acid.

3. A magnetic toner according to claim 1, wherein the Ti chelate compound is represented by any one of the following formulae (I) to (VIII) and hydrates thereof:

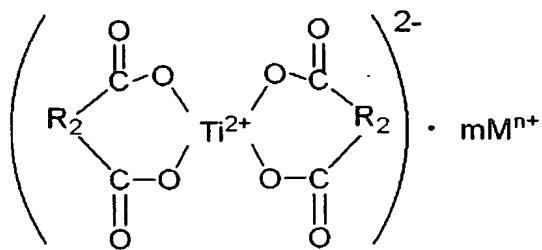
Formula (I)



(In the formula (I), R<sub>1</sub> denotes one of an alkylene group and an alkenylene group each having 2 to 10 carbon atoms

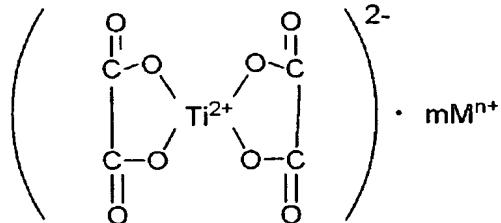
and may have a substituent, M denotes a countercation, m denotes a cation number, n denotes a cation valence, n=2 when m=1, n=1 when m=2, and M denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when n=1, and denotes an alkali earth metal ion when n=2.) ;

Formula (II)



(In the formula (II),  $\text{R}_2$  denotes one of an alkylene group and an alkenylene group each having 1 to 10 carbon atoms and may have a substituent, M denotes a countercation, m denotes a cation number, n denotes a cation valence, n=2 when m=1, n=1 when m=2, and M denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when n=1, and denotes an alkali earth metal ion when n=2.) ;

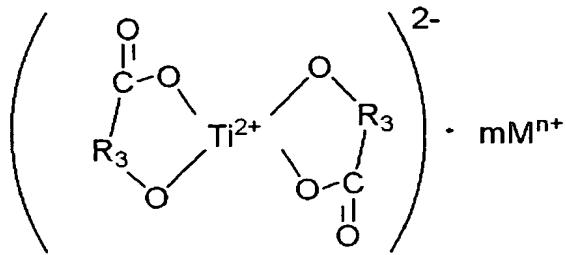
Formula (III)



(In the formula (III), M denotes a countercation, m denotes a cation number, n denotes a cation valence,

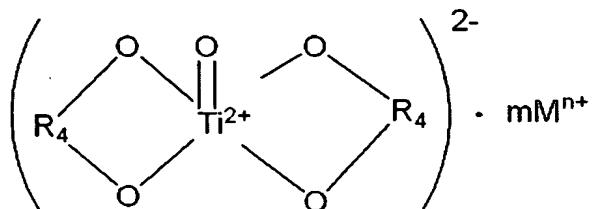
$n=2$  when  $m=1$ ,  $n=1$  when  $m=2$ , and  $M$  denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when  $n=1$ , and denotes an alkali earth metal ion when  $n=2$ .);

Formula (IV)



(In the formula (IV),  $R_3$  denotes one of an alkylene group and an alkenylene group each having 1 to 10 carbon atoms and may have a substituent,  $M$  denotes a countercation,  $m$  denotes a cation number,  $n$  denotes a cation valence,  $n=2$  when  $m=1$ ,  $n=1$  when  $m=2$ , and  $M$  denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when  $n=1$ , and denotes an alkali earth metal ion when  $n=2$ .);

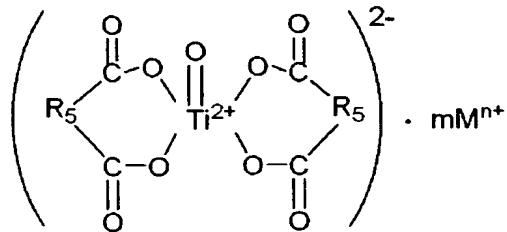
Formula (V)



(In the formula (V),  $R_4$  denotes one of an alkylene group and an alkenylene group each having 2 to 10 carbon atoms and may have a substituent,  $M$  denotes a countercation,  $m$  denotes a cation number,  $n$  denotes a cation valence,

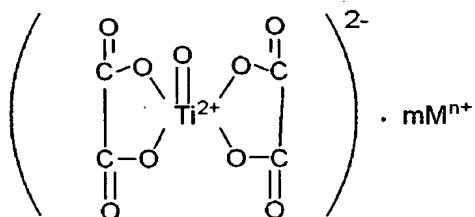
$n=2$  when  $m=1$ ,  $n=1$  when  $m=2$ , and  $M$  denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when  $n=1$ , and denotes an alkali earth metal ion when  $n=2$ .);

Formula (VI)



(In the formula (VI),  $R_5$  denotes one of an alkylene group and an alkenylene group each having 1 to 10 carbon atoms and may have a substituent,  $M$  denotes a countercation,  $m$  denotes a cation number,  $n$  denotes a cation valence,  $n=2$  when  $m=1$ ,  $n=1$  when  $m=2$ , and  $M$  denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when  $n=1$ , and denotes an alkali earth metal ion when  $n=2$ .);

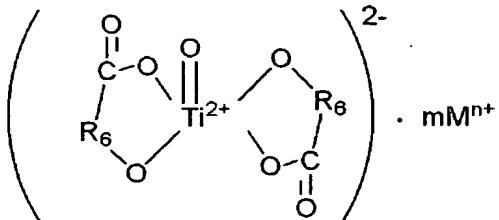
Formula (VII)



(In the formula (VII),  $M$  denotes a countercation,  $m$  denotes a cation number,  $n$  denotes a cation valence,  $n=2$  when  $m=1$ ,  $n=1$  when  $m=2$ , and  $M$  denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when  $n=1$ , and denotes an alkali earth metal

ion when n=2.).

Formula (VIII)



(In the formula (VIII),  $R_6$  denotes one of an alkylene group and an alkenylene group each having 1 to 10 carbon atoms and may have a substituent, M denotes a countercation, m denotes a cation number, n denotes a cation valence, n=2 when m=1, n=1 when m=2, and M denotes one of a hydrogen ion, an alkali metal ion, an ammonium ion, and an organic ammonium ion when n=1, and denotes an alkali earth metal ion when n=2.).

4. A magnetic toner according to claim 1, wherein the magnetic iron oxide comprises 0.1 to 2.0% by mass of an Si element.

5. A magnetic toner according to claim 1, further comprising hydrophobic silica treated with hexamethyldisilazane and with silicone oil.

6. A magnetic toner according to claim 1, wherein an average circularity of the magnetic toner particles of the magnetic toner which have equivalent circle diameters of 3  $\mu m$  or more and 400  $\mu m$  or less measured

with a flow type particle image analyzer, is 0.930 or more and less than 0.970.

7. A magnetic toner according to claim 3, wherein the Ti chelate compound is represented by any one of the formulae (II), (III), (VI), and (VII) and hydrates thereof.

8. A magnetic toner according to claim 1, wherein the polyester component comprises a compound having a structure containing oxyalkylene ether of a novolak type phenolic resin as an alcohol component.

9. A magnetic toner according to claim 1, further comprising a metal aromatic hydroxycarboxylate.